PROCEEDINGS

OF THE

ROYAL SOCIETY OF EDINBURGH.

VOL. IV.

1859-60.

No. 50.

SEVENTY-SEVENTH SESSION.

Monday 28th November 1859.

Dr CHRISTISON, V.P., in the Chair.

The following Council were elected:-

President.

SIR T. MAKDOUGALL BRISBANE, BART., G.C.B.

Vice-Presidents.

Sir David Brewster, K.H. The Right Rev. Bishop Terrot. Dr Christison.

Professor Kelland. Hon. Lord Neaves. The Very Rev. Dean Ramsay.

General Secretary-Professor Forbes.

Secretaries to the Ordinary Meetings-Dr Balfour, Dr Lyon Playfair.

Treasurer-J. T. GIBSON-CRAIG, Esq.

Curator of Library and Museum-Dr Douglas Maclagan.

Councillors.

John Hill Burton, Esq.
David Stevenson. Esq.
Wm. Thos. Thomson, Esq.
Dr Allman.
The Duke of Argyll.
Andrew Murray, Esq.

Rev. Dr Lee.
D. Milne Home, Esq.
Professor C. Innes.
Dr Lowe.
Professor W. J. M. Rankine.
James Dalmahoy, Esq.

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Monday, 5th December 1859.

1. At the request of the Council, Lord Neaves, V.P., delivered the following Opening Address:—

It has been customary for those who have opened the business of the Session in the Royal Society, from the seat which I now occupy, to give some notice of those members who may have been taken from us by death during the preceding year. The rolls of the Society still exhibit many names illustrious both in science and in literature, but seldom has a year occurred in which we have been deprived of so great a number of eminent members. The first whom I shall mention is Principal Lee:—

John Lee, late Principal of the University of Edinburgh, was one of the most remarkable and estimable men of his time. His intellectual qualities were of a high order; his attainments and acquisitions of knowledge were of the most varied and extensive kind. On almost all subjects he was admirably well informed, and in some departments he was unquestionably the most learned man of his age and country. He was more than all this: he was a most pious Christian minister, and he was one of the most friendly and affectionate of men.

Dr Lee was born at Torwood-lee-Mains, in the parish of Stowe, on the 22d of November 1779. He received his early education from the care of his mother, whom he was accustomed to speak of as a woman of remarkable intellectual powers and mental cultivation, as well as of distinguished moral excellence. The debt of gratitude which he owed to his parents must indeed have been great, if it bore any proportion to the filial reverence and devotion which he showed them in every form in after life.

He was sent, when a boy of ten years old, to Cadon Lee School, at Clovenford, then taught by Mr James Paris, and in which, during Dr Lee's attendance, Doctor Leyden was an assistant. From that school he went to the University of Edinburgh in 1794, being then in his fifteenth year. In his opening address to the University, as Principal, in 1842, he refers to its state when he became a student, and recurs with pride and pleasure to the eminent men who then gave and received instruction within its walls. He continued at the

University for ten years, having studied both medicine and theology. He took the degree of M.D. in 1801, when his Graduation Thesis was much admired for its Ciceronian Latinity. He was licensed as a probationer of the Church in 1804.

During his attendance at college, he assisted Professor Robison in editing Dr Black's "Lectures on Chemistry." In 1802, before his college career closed, he was offered and he accepted the chair of Moral Philosophy in the University of Wilna, in West Russia, in which also, I believe, two other distinguished men were invited to become Professors—Thomas Campbell, the author of "The Pleasures of Hope," and Sir David Brewster, who has now succeeded Dr Lee in the office of Principal in our own University. It is but fair to say that these invitations were made through the medium of the late David Earl of Buchan, who, with some peculiarities of character, was a man of talent and taste, and inspired by a sincere zeal for the advancement of literature and science. Dr Lee prepared himself for fulfilling the duties of this appointment by writing out in Latin a portion of the lectures which he proposed to deliver at Wilna, but the arrangement was broken off by political events which interfered with its completion.

For some time previous to the end of 1805, Dr Lee had been on intimate terms with Dr Carlyle, well known as an eminent clergyman of the Church of Scotland, and then minister of Inveresk, near Edinburgh. He lived a good deal with Dr Carlyle, both at Inveresk Manse and in the Doctor's town residence; and as Dr Carlyle was then about eighty years of age, and still intimate with those of his own contemporaries, who were alive, such as John Home and Adam Fergusson, who belonged, like himself, to a by-gone age, and who had witnessed many remarkable events and social changes, it cannot be doubted that Dr Lee must have derived from this acquaintance a great deal of traditional knowledge as to the civil and ecclesiastical history of Scotland in the eighteenth century, and his natural bias may have been confirmed towards that historical research, and that interest in personal character and anecdote, by which he was afterwards distinguished. Dr Carlyle, at his death in 1805, appointed Dr Lee one of his trustees, and committed specially to his care an autobiographical memoir, which cannot fail to be full of interest, and as to which, I may be permitted to express a hope, that it will ere long be communicated to the public.

Among other eminent clergymen who befriended Dr Lee in the outset of his career, special mention ought also to be made of Dr Finlayson, of whom he always spoke in terms of the warmest regard, and to whose memory he has dedicated one of the painted windows now put up in the Old Greyfriars' Church.

About the same early period, Dr Lee came to be for some time connected with the late Sir John Lowther Johnstone of Westerhall, in the capacity of tutor or guardian, and was thus brought into contact with several eminent public men, with whom Sir John was on familiar terms. I have heard that Sir John made to Dr Lee two offers, either of which, if accepted, would have materially altered his future course in life. One was, to bring him into Parliament for one of Sir John's burghs; the other, to procure him a commission in the Guards. These offers, if made, were certainly declined; but he retained his ward's friendship and respect, and, from his gratitude, derived, during life, a pension of L.100 a year, which Sir John settled on him.

After taking his medical degree, he seems to have entertained some idea of following medicine as a profession; and he has been heard to say, that at one time, when a young man, he had three medical appointments in his possession or power; one, as assistant surgeon to a regiment; another, as surgeon's mate on board a ship; and a third, as a surgeon in the East India Company's Service. Finally he rejected all thoughts of the medical profession, and fixed upon the Church as the field to which he should dedicate his life.

In 1807 Dr Lee became minister of a Scotch Chapel in London, and, in the same year, he was presented to the parish of Peebles. He continued there till 1812, when he became Professor of Church History in St Mary's College, St Andrews, where he remained till 1821. A portion of the lectures he then delivered, embracing the History of the Church of Scotland from the Reformation, is now announced for publication, and cannot fail to excite a lively and general interest.

In 1820, before quitting his chair at St Andrews, he was appointed Professor of Moral Philosophy in King's College, Aberdeen, where he lectured for one session, chiefly by a deputy, to whom he transmitted his lectures daily by post. He speedily resigned his chair at Aberdeen, and in 1821 was removed to the charge of

the parish of Canongate, Edinburgh; and thereafter, he successively held the other charges of Lady Yester's Church, and the Old Church Parish, in this city.

In 1824 he was named one of the Royal Commissioners for visiting the Scotch Universities. In 1827 he became Principal Clerk of the General Assembly. In 1837 he was appointed Principal of the United College of St Andrews, but did not long retain the appointment. In 1838 he was offered, but declined, the appointment of Secretary to the Bible Board, then newly constituted.

In 1840 he was elected Principal, and in 1843 he was appointed Professor of Divinity, in the University of Edinburgh. Previously, during the session of 1827–28, he had taught gratuitously the Divinity class, and afterwards, during the session of 1851–52, he taught gratuitously, again, the Moral Philosophy class, and in 1853–54, the Church History class, in the College of Edinburgh, during vacancies in those chairs occasioned by the death or the illness of their Professors.

He held the appointments of Chaplain to the Queen, of Dean of the Chapel Royal, of Chaplain to the Royal Academy, and to the Convention of Royal Boroughs, and he was at his death one of the Vice-Presidents of this Society.

I have ventured to say that he was one of the most learned men of his time, and in some departments of National and Church History, particularly in all that concerns the civil and ecclesiastical affairs, as well as the manners and habits of the people of Scotland, during the sixteenth and seventeenth centuries, his knowledge was most minute and accurate. He was also at home in the cognate subject of the History of the Puritans during the same period. We have lately witnessed in this city the exposure to sale of a portion of his library, consisting of upwards of 20,000 volumes, some of them of the most rare and curious description; and I believe that there was not one of his books with which he was not familiar, and of which he did not know, as well as it could be known, the authorship, the occasion, the object, and the import. The subject of Bibliography had been from his early years a favourite study; and his habits of assiduity and perseverance, as well as his capacious and retentive memory, enabled him to prosecute it with singular Nor was his intellectual power overlaid or paralysed by the immense mass of his acquired knowledge. His opinions on all subjects, and particularly on those to which he had directed his special attention, were clear and comprehensive; while, at the same time, they were marked by that candour and moderation, which I believe to be universally produced by the thorough and accurate study of any branch of knowledge or portion of history.

As in the case of many men of learning and talent, his published works are but an imperfect indication of his actual powers. Principal Lee, however, has left some things behind him, such as the "Memorial for the Bible Societies," and the "Pastoral Addresses" composed by him for the General Assembly, which show at once the force of his understanding, the variety and accuracy of his information, the rectitude of his feelings, and the purity of his taste. His stores of learning also were always at the service of those who wished to make use of them, and his ready aid has been repeatedly acknowledged as having given additional value to some of the most important works of our time on ecclesiastical or antiquarian subjects. I would fain hope that, among his numerous papers, much may yet be found that deserves and demands publication.

Dr Lee's health had never been robust, and was probably injured in early life by habits of abstinence and excessive study. But it was wonderful with what energy and vigour he discharged his duties and followed out his favourite pursuits. He died on 2d May 1859, in the 80th year of his age, and in circumstances which had a melancholy connection with the death of a dear son just returning from India.

No man could be more universally regretted; he had not an enemy or an ill-wisher in the world. The numerous appointments which he successively and simultaneously held are a proof of the esteem and respect with which he was regarded by all; but those only who knew him well can speak to his amiable disposition, to his cheerful and genial habits, and to the charity and Christian kindness which he extended to all men of worth and merit, of whatever opinions or whatever persuasion. An account of Dr Lee, indeed, would be very inadequate if it did not prominently bring forward what I have thus alluded to—his highly amiable and affectionate character. In early life he earned on all sides the love as well as the respect of those who knew him. In his ministerial charge at Peebles, he was long remembered for his quiet and unostentatious, but most faithful discharge of his pastoral duties,

for his ready and hearty sympathy with all who needed it, for his consolatory tenderness to the sick, and his great liberality to the poor. Nor were these qualities of the heart extinguished or impaired by the long life of labour and study which he afterwards led; on the contrary, they continued to the end. He was ever ready to relax into a playful cheerfulness and pleasantry in society; while his attention to such of his friends as from sorrow or suffering had more serious claims upon him was unremitting and invaluable.

In consequence, perhaps, of some defect of manner, Dr Lee was not sought after as an attractive preacher. But his sermons were excellent, both in matter and in style, and some of his earlier ones, when read in manuscript, had reached and obtained the approbation of Royalty itself. In other respects he was all that a minister of the gospel ought to be. Orthodox in doctrine, evangelical in sentiment, and blameless in conduct, he had a frankness and freedom from professional pedantry or clerical rigour which are rarely met with in men of his learning and condition. We shall not soon see his like again, if we ever do so in our day. Piety, zeal, eloquence, and assiduity will not be wanting to the Church; but the combination of these with the learning, the wide range of information and sympathy, and the knowledge of the world which he possessed, will not readily be found again.

The next name I have to record among those who have been taken from us, is that of William Pulteney Alison, who was also, at his death, a Vice-President of the Society. Dr Alison was the eldest son of a most amiable and excellent man, the Rev. Archibald Alison, long an Episcopal minister in this city, well known for his elegant published sermons, and for his Essay on Taste, in which he explained with much success his views of the influence of association in producing or heightening the sense of beauty, a theory which, within moderate limits, is founded on truth, but which has been brought into discredit by the extravagant length to which it was unfortunately carried in Lord Jeffrey's dissertations on the same subject.

Dr Alison in early life had the advantage of the best society which Edinburgh could boast of, and of which his father was a cherished and distinguished ornament. His education and connections led him to bestow much attention upon the subject of mental

philosophy, which he cultivated with great success. But he ultimately adopted medicine as his profession, to which he was probably drawn by the example and influence of his distinguished relative the late Dr James Gregory, and in which he was destined to find an appropriate career for his talents, acquirements, and virtues.

It would be idle in me to detail or dilate upon the particulars of his professional life, which was in all respects eminently successful, and in the course of which he came to hold a high place both as a teacher of medical science and as a practising physician. The notice of him which has lately appeared in the "Medical Journal" is so full and complete as to leave nothing to be desired in this respect; and if I were to attempt to abridge it, I should only weaken its effect, and probably fall into errors from which no unprofessional man can easily keep free. Neither can it be necessary to inform any one here present of the valuable contributions which Dr Alison made to the theory of medicine, or of the great skill, the indefatigable patience, and the unfailing benevolence by which, as a physician, he was uniformly distinguished. His published works are generally regarded as entitling him to a high place as an expounder of the philosophy of medicine, and his powers as an oral teacher were peculiarly efficient, and exercised a marked influence on the progress of medical science. The time, the strength, and the resources which he bestowed upon the sick poor were almost incredible, and such as no one could have given who to vigour of bodily frame had not added the impulse of the warmest benevolence and the highest principle. As a practical philanthropist, his name deserves to be placed not far behind that of Howard himself,

It would be a serious omission in any notice of this excellent man if his views and exertions, with reference to the Poor Laws of the country, were not in some degree commemorated. Two theories upon that subject, diametrically opposed to each other, were at one time advocated by two distinguished men in Scotland—Dr Chalmers and Dr Alison. Chalmers, misled, I think, by the enthusiasm of his own genius, and overlooking the peculiar powers which he himself possessed, conceived the romantic idea, that a compulsory or legal provision for the poor might be altogether dispensed with. He maintained, that even the great towns, if they were duly subdivided and furnished with a certain amount of religious machinery and superintendence, might be so purified and elevated in the

scale of moral and physical wellbeing, that any pauperism which they might still produce could easily be relieved by the voluntary bounty of Christian benevolence. For this purpose he made the rather startling demand, that at least twenty new parishes and churches should be established in Glasgow. He was gratified to the extent of having one new church erected and assigned to him for the trial of his great experiment; and it is possible that by his own unwearied diligence and unrivalled influence, together with the auxiliary exertions of another most remarkable man, Edward Irving, who was given him as his assistant, the pauperism of his district may have been kept within manageable bounds, and sufficiently relieved by the spontaneous offerings of the wealthier parishioners. obviously impossible that any such system could be established over the whole country; and even if such machinery had been provided, nothing short of a miracle could have supplied men like Chalmers and Irving in every district to carry out the plan. At the commencement of the attempt, doubts were raised by judicious thinkers as to its probable success; and subsequent reflection and experience soon converted those doubts into certainties, and produced a general conviction that the scheme was Utopian.

The views of Dr Alison on this important subject were essentially different. Indulging in no chimerical anticipations, better suited to a prophetical millennium than to the everyday state of actual things, he looked earnestly to the evils that were immediately operating or impending, and sought anxiously to remedy or avert them. He maintained that a compulsory contribution for the poor was indispensable. It was the only way of interesting the selfish portion of the rich in the welfare of their poorer brethren, by inducing them to take measures for diminishing pauperism, so as to save themselves from taxation. He contended that the relief of destitution could not be safely left to the precarious care of voluntary charity, but should at all hazards be provided for so as to keep up the general tone of society, and save it from moral and physical evils of the first magnitude. Destitution, he conceived, when without regular relief, tended to lower the standard of subsistence among the poor to an alarming degree, and to make them forget that there was any better state of things which it was worth their while as Christians, or as human beings, to aspire to. Destitution, he further asserted, and his assertion seemed to be proved by

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his medical experience, was one of the most fertile sources of disease, and particularly of disease of an epidemic character. It was at once, particularly in great towns, a predisposing cause to every form of pestilence; and by depressing vitality, it interposed the greatest obstacles to a cure. He thus endeavoured to demonstrate that the administration of adequate relief to paupers was indispensable for the public good, and a necessary measure of sanitary precaution.

These principles were, over a series of years, reiterated by Dr Alison, and pressed upon the public attention with all the fervour of deep conviction and ardent benevolence; and they were seconded within our own locality by the occurrence of alarming epidemics, which could not fail to rivet the public attention on the subject. If it is not presumptuous to say so, we seem to have reason to infer that the infectious nature of certain diseases is designed by Providence to quicken our interest in our fellow-creatures, and to remind us that our own welfare depends, in a great degree, on the health and happiness of our neighbours. As a conflagration in an adjoining house makes us tremble for our own safety, so the prevalence of fever or pestilence in the poorer classes of our own city excites in us the fearful anticipation that the mischief may soon extend to us or to our children. It was the object of Dr Alison to prove (and I think he succeeded in proving), that if we wish to avert epidemic and infectious diseases from our own doors, we must attend to the physical as well as moral condition of our fellowcitizens, and must establish a certain and sufficient provision for the poor.

The theoretical opinions of Dr Alison would probably have led him to exact a legal provision even for the able-bodied poor, but subject always to the condition that no one should receive support who was not ready to work. The practical question, however, scarcely extended to this point; and the result of the discussion finally was, that the views of Dr Alison obtained a triumph over those of an opposite tendency. The Poor Law Act of 1845 was passed; and a system of Poor Law relief was thereby established, which, I venture to say, deserves the highest commendation, and is fraught with signal benefits to the social condition of Scotland. The Scotch Poor Laws had always recognised a legal right to relief in the impotent poor; but, in practice, the frugality or parsimony of the national character had led to great abuses, by restricting the allow-

ances made to paupers to such miserable pittances as were scarcely sufficient to sustain life; while the courts of law had but an imperfect jurisdiction to redress the evil. By the new law, a remedy is provided in the Board of Supervision, which practically has the power of seeing that adequate allowances are given to paupers by the local boards.

The Scotch Poor Laws had denied relief to the able-bodied poor; and it cannot be doubted that this question is one of a most delicate kind, as the right of the able-bodied poor to demand support might, if pushed to an extreme, lead to little less than a community of goods. The new Act still disallows any legal right in the able-bodied, but permits parochial boards to give them occasional relief, as a precautionary measure; and it is thought that this middle course effects a prudent compromise of the dispute.

The blessings, direct and indirect, which are likely to flow from this improved system of the Poor Laws, and from the increased attention thus given to the condition of the poor, may, in a great degree, be ascribed to Dr Alison's exertions; and his country owes to him, in this way, a debt of gratitude which even now it is difficult to estimate. The misery of the poor was alleviated, the tendencies to disease were diminished, the bonds of society were strengthened, and all were taught the important lesson that their own safety and happiness were indissolubly linked with those of other men.

It is curious to compare the early dawn and promise of Dr Alison's life with the character of its ultimate progress and development. The tastes and pursuits of his accomplished father were chiefly those that belonged to a man of elegant and pious contemplation. His own youthful aspirations are said to have tended towards a military life. The employments of his maturer years were certainly of a very different kind, though bearing still a strange moral analogy to these influences. He became engaged in a warfare, but it was with social misery and maladministration, and he carried it on in the pure and self-denying spirit of that great Exemplar who came into the world to heal our diseases and bear our infirmities, and who went about continually doing good. In the words of a distinguished friend, who knew him and loved him well, "it is not too much to say, that Scotland will mourn in him for one of the best of the Christian sons who have adorned her soil; -one who devoted himself, body and soul, to what he believed to be the good of his fellow-creatures, with a wisdom that looked beyond the present, with an energy that cast away all thought of self, with a Christian love that never failed."

The latter days of Dr Alison's life were clouded by the visitation of severe and distressing disease. With conscientious firmness, he resigned his professorial position, and retired into private life. To the last, however, he enjoyed intervals of serene and useful exemption from his sufferings; and it was only last year that he contributed to the Transactions of this Society an interesting notice of his cousin, the late Dr William Gregory. But the fatal ailment was making sure progress in his system, and terminated fatally on 23d September 1859, when he had attained his 70th year.

Another eminent and excellent member of this Society who has been taken from us is the late Lord Cathcart, for many years well known as Lord Greenock, his father having survived till the year 1843. A great part of Lord Cathcart's career belongs to professional or public life, and is fitter for the military or historical annals of the country than for the journals of a scientific society. His military services and distinctions, however, are proper here to be generally noticed, as illustrating, and making more conspicuous, the devotion to science which he eminently showed.

Lord Cathcart was born in the year 1785, and entered the army at the age of fifteen. His choice of a profession was the result of no aversion to classical studies, to which he was uniformly attached, nor of any vulgar ambition for the outward show of the military profession, but of a strong sense of public duty, which was indeed the guiding principle of a long and useful life. He was for several years afterwards actively employed in military service, until, for a short time, he was disabled by the injurious effects of that pestilence which, in the Walcheren expedition, cut off so many thousands of our countrymen. In 1810, when now a major in the army, he embarked for the Peninsula, anxious to follow the fortunes of his relative, Sir Thomas Graham, afterwards Lord Lynedoch, then second in command in that field. He distinguished himself in several of the most important battles and sieges in Spain, until he was sent to assist Lord Lynedoch in Holland, as the head of the Quarter-Master-General's Staff, on which occasion the Duke of Wellington took leave of him in these words :- "I am convinced that Sir Thomas will be as glad to receive your assistance as we are

sorry to lose it." He was afterwards present at Waterloo, where he greatly distinguished himself, and where he had three horses shot under him. For his services during the war he received the Russian Order of St Waldemir, and the Dutch Order of Willems, and at home he was made a Companion of the Bath.

During subsequent years he was appointed to employments of the highest importance at home and abroad, and it may be interesting to mention that his mind was first turned to the study of Geology while in the command of the Royal Staff Corps stationed at Hythe, in Kent. The corps was a scientific one, and had formed a museum of the various objects collected by its several detachments; and in this way Lord Cathcart was led to take an interest in a subject to which he ever afterwards devoted much of his attention. In 1830 he came to live in Edinburgh, and for some years was occupied by scientific pursuits. He attended lectures in the University; he took an active concern in the proceedings of the Highland Society; and of the Royal Society he was an assiduous and useful member, having read several papers which are published in its Transactions. In 1841 he discovered a new mineral—a sulphuret of cadmium which was found in the course of excavating the Bishopton Tunnel, near Port Glasgow, and which received after him the name of Greenockite. If his quick eye had not there detected it, it would probably have remained unknown, as it has not (I believe) been discovered It is a beautiful substance, that was entirely new to elsewhere. mineralogists.

In 1837 Lord Cathcart had been appointed to the command of the forces in Scotland. In 1842 he was made a Lieutenant-General, and in 1845 he was sent out as Commander of the Forces in British North America. He held this appointment for several years in very difficult times, and for some period combined with it the civil government of Canada. In 1849 he returned home, but still continued to give the public the benefit of his services in various capacities. Latterly, he resided at his seat in Sussex, where he passed the last years of his life in a happy retirement, surrounded by his family, and finding an interesting occupation in the scientific pursuits which he had always loved so much.

In 1858 his constitution gave way, and on the 16th July 1859 he died peacefully, in the full possession of his faculties to the last. He was a man of powerful mind, which was improved by great

industry and perseverance; and he had a kindly and generous heart, which threw a sunshine around the circle of his domestic life.

To those who had not the pleasure of his acquaintance, it is not easy to give a correct impression of what Lord Cathcart was to the Royal Society, and the scientific men of Edinburgh, from fifteen to twenty-five years ago.

Under an exterior and with an address which did not adequately represent the qualities concealed behind them, he had a warmth of heart, a sterling modesty, a steadiness of purpose, and a love of science for its own sake, which are seldom combined in the same He was very retiring in his habits and conversation. Few could have imagined that he had gone through the amount of service detailed in the preceding narrative; and if it be considered how total a revolution of habits and employments was involved in the transition from his military to his civil life, it is remarkable what success and energy attended his scientific career during the years he spent among us. He was distinguished by persevering and acute observation in what regarded geological and mineralogical research, which he carried on in a minute, laborious, and systematic manner. He detected many interesting phenomena in the very neighbourhood of Edinburgh, which had escaped those who had lived there always. His conversation on these subjects was pre-eminently instructive; and it is believed that he never took an ordinary walk without bringing home some specimen, or at least some remembered fact, which served him for subsequent meditation. He was fond of the society of men of science, and his continued interest in the Royal Society formed an essential element in its prosperity.

Lord Murray, at one time a Vice-President of the Society, is another member whose loss we have to lament, in common with all who knew him, and in common, I may add, with very many whom he never knew. Though not specially devoted to science, he took a warm interest in its progress, and was himself an ardent and discriminating lover of literature, and an accomplished scholar. His high social as well as official position—his connection by relationship or friendship with many of the foremost men and families in the country—his cordial hospitality and polished manners—and, joined to these, the still higher qualities of large liberality of sentiment, great moral courage, and Christian philanthropy and benefi-

cence—gained him the love and esteem of his friends and fellowcitizens, and made his loss be felt, even at his advanced years, as a public bereavement, and as a personal affliction to all who had felt or witnessed the influence of his character.

We have also lost in this year the last of a most distinguished family of medical teachers, Dr Alexander Monro of Craiglockart, for many years Professor of Anatomy in the University of Edinburgh. He was in his 86th year when he died, having been born on the 25th of November 1773. He was the son of Alexander Monro the second, who again was the son of a distinguished father of the same name-all three being Professors in this University. The late Dr Monro was appointed assistant and successor to his father in 1798; and after his father's death, he occupied the chair with great reputation and success until 1845, when he resigned it, having, during that long period, numbered among his pupils many who became the most eminent physicians and surgeons of our day in both ends of the island. Dr Monro was an active member of the medical and literary societies of Edinburgh; and at the time of his death he was the Father of the Royal Society. The Papers which he contributed, as well as his other published works, are highly creditable to his talent and industry. His character, in every way indeed, though latterly less known from his advanced years and retired mode of life, was deserving of the high respect which it always received; and he ought especially to be remembered as one of those whose cultivated tastes in departments beyond the range of his profession contributed to secure for the society of Edinburgh the reputation which it has so long maintained, and which others, it is to be hoped, will take care that it does not now Dr Monro's death seemed to sever the last tie which united the present generation to one long passed away, but ever illustrious and memorable as containing the founders of that great medical school among us, which still flourishes in undiminished splendour, and which, I trust, is not soon destined to decay.

Alexander James Adie, optician in Edinburgh, is another valued member of the Society whom we have lost. He was born at Edinburgh in 1775; and from the early death of his father, was

thrown upon the care of a maternal uncle, Mr John Miller, optician in Edinburgh, a well-informed and kind-hearted old man, fond of books and philosophy, and a great friend of one to whom Scotland is under considerable obligations, Mr David Herd, a well-known editor of Scottish ballads. Under his uncle's instructions, Mr Adie became an optician, and followed his profession with great diligence and assiduity; while, from a sense of his imperfect education in youth, he was not ashamed as he grew up to attend lectures, and take lessons at his leisure hours in all branches of science in which he found himself deficient.

His attention to business, with his skill as a mechanic, his quick inventive powers, and his sound judgment, led to his being much employed by all kinds of inventors, to give their schemes a practical form; and in this way he acquired great readiness and experience in the higher parts of his profession. His attention was at the same time directed at an early period to meteorological observations, with a view to which, and also with reference to the study of astronomy, he erected on his house in Merchant Court a small private observatory, long before any public establishment of the kind existed in Edinburgh. To his experiments the public are indebted for the important invention of the symplesometer, an instrument of great value at sea, and which may be considered as having contributed much to the safety of shipping. Mr Adie took great interest and gave valuable assistance in the preparation of apparatus and instruments required by scientific men in the course of their discoveries. He assisted Sir James Hall in his experiments for illustrating geological formations under high pressure, and his ingenuity was of great service in the construction of the minute but powerful lenses of garnet to which Sir David Brewster resorted in his improvements of the microscope.

In such operations, in the daily conduct of his business, and in the education of his family, he spent the active part of a long life. In his later years he was an assiduous and successful gardener, and carried on experiments in that art till a late period. At the age of eighty-four he died as quietly as he had lived, respected and revered by all his family and acquaintance. I ought to mention, that in his youth he was a keen Volunteer, and always maintained that no invader could ever have got to Edinburgh except over the

dead bodies of the Volunteers. I have no doubt he would have felt an equal interest, and an equal confidence, in the volunteer movement of the present day.

While these pages were in preparation, we were deprived of another eminent and valuable member of the Society in Professor George Wilson, who has been suddenly carried off in the prime of life.

Dr Wilson was born in Edinburgh in the year 1818, and was thus, at his death, in the 41st year of his age. His parents were highly respectable, though not in such an elevated station as to diminish the credit due to his own exertions in attaining the position which he ultimately reached; but it deserves to be noticed, that he may be included in the number of distinguished men who have been in a great degree indebted for the development of their talents to the maternal character and influence. Dr Wilson's mother, a lady of remarkable intelligence, energy, and piety, is still living, to cherish the memory of his love to her, and of his many virtues and high reputation.

He was educated at the High School, where he always maintained a good place in his class. He entered the University of Edinburgh in or about the year 1834, and took his medical degree in 1839. In the interval, his attention came to be more specially directed to the chemical department of medical science, and he was successively engaged as chemical assistant to Dr Christison and to Professor Graham of London.

In 1840 he began to lecture in Edinburgh on chemistry in connection with the extra Academical Medical School. But at this time his health received a severe shock from the effects of excessive exertion during a pedestrian tour, which rendered amputation of the foot necessary, and ultimately led to a delicacy of constitution which settled upon his lungs.

He continued to teach as a private lecturer for upwards of fifteen years, and during that period secured the admiration, respect, and love of all who came in contact with him. His pursuit of knowledge was extensive and indefatigable, and his power of exposition was marked by the greatest clearness and animation, such as never failed to awaken in his hearers the strongest interest in the subject he was treating. He all along continued to cultivate a wide range of general

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literature, and his elegance of taste and reach of illustration were of much service in adding to the attraction of his prelections, as well as giving a great charm to his conversation, and to his literary productions. His published works and contributions to periodical literature are too well known to require detailed notice. which related to scientific subjects were distinguished by a minuteness of research and a precision of statement which give them a very great value, and which could hardly have been expected in one who was able at the same time to embellish them with so many beauties derived from his ample stores of imagination and fancy. His "Treatise on Colour Blindness" is a remarkable example of the exhaustive and practical manner in which he could treat such a subject; and his Lives of Scientific Men, while laudably compressed into a narrow compass, as compared with most modern biographies, are pregnant with valuable information and important results. He was in every way admirably qualified to diffuse among a wide circle of hearers and readers a strong interest in science as intimately connected with art and ordinary life.

In the spring of 1855 he was appointed Director of the Industrial Museum, a situation for which he was eminently suited; and in the autumn of the same year he was appointed to the Chair of Technology, then recently founded in the University of Edinburgh, in connection with the Museum. It is needless to say in this meeting with what ability and success he discharged these duties. It was fondly hoped that in this congenial position, in the midst of friends and fellowcitizens who loved and appreciated him, and in the bosom of his own affectionate family, his constitution might gain strength, and that he might live to develop more fully, and perhaps in some new and original shape, the talents and genius of which he was possessed. But such was not the destiny appointed for him. He was sometimes, perhaps, too careless of consequences, where the call of supposed duty was heard, or where an opening of usefulness was afforded; and in the middle of much ill health, and many warnings of danger, he continued to exert himself in a manner that would have been more appropriate in one of robuster frame. But his pleasure lay in the exercise of his intellectual faculties, in the advancement of science. and in availing himself of every opportunity to do good or show kindness; and it is probable that the pious resignation with which he long contemplated his precarious condition, and the state of preparation which he constantly endeavoured to maintain against the approach of death, may have led him to fear that event less, and to despise precautions for his own safety which his friends would have wished him to adopt. I need not say that his talents and merits, as a man of science and literature, were equalled by the amiableness of his disposition, and by his moral and religious excellencies. He won, and he preserved, the friendship of some of the most eminent men of his time; and no one who came within the sphere of his influence could resist its attraction. The honours that he attained, and the success that attended him in life, were not considered by others to be more than he well deserved: but he himself was humble and unassuming; thankful for the mercies that he considered he had received, and, in the midst of much bodily suffering and distress, not merely patient and submissive, but cheerful and happy. His last illness was only a severer form of many previous attacks: but he had continued to labour to the last; and in particular his duties at the meeting of the British Association at Aberdeen, in the autumn of this year, were discharged by him under great debility, such as probably tended to unfit him for the severity of the winter that was at hand. The disease of the lungs having assumed a serious aspect, made rapid progress, and his death ensued on the 22d of November 1859. His end was calm and peaceful, such as became the pious, innocent, and useful life which he had led, and left his friends no cause to mourn, except for the loss which they themselves sustained.

The unusual number of deceased members in the past year, as well as the eminence in their various departments of those whom I have now specially noticed, must furnish my apology, first, for the imperfect nature of the preceding sketches, and, next, for my forbearing to attempt any similar account of the other members of whom we have been deprived. Some of these need no eulogy from any one, while there are others on whose worth and value it would have been a pleasing task to expatiate, if time and the pressure of other claims had permitted it. I must therefore content myself with the simple enumeration of their names.

 Of the Fellows of Session 1858-59, there have died 13:-

Alex. Adie, Esq.
Dr W. P. Alison.
Right Hon. Earl Cathcart.
Dr Gillespie.
Dr Mortimer Glover.
Right Hon. Earl of Haddington.

John Learmonth, Esq. of Dean.

Very Rev. Principal Lee. Professor Low. Right Hon. Earl of Minto. Dr Monro. Hon. Lord Murray. Sir James Ramsay, Bart.

Died since the printing of this year's list, 3:-

Dr James Andrew. Hon. Mountstuart Elphinstone. Dr George Wilson.

We have also lost the following Honorary Members, all of them men of the most distinguished eminence:—

> Baron Humboldt. Mr Hallam. Mr Robert Stephenson.

The Fellows elected during Session 1858-59, are 10:-

Dr John Brown. Rev. John Duns. Dr Fayrer. G. W. Hay, Esq. Lieut, John Hills. Dr Lyon Playfair, C.B. Prof. Richardson, Durham. George Robertson, Esq., C.E. Robt. Russell, Esq. Wm. F. Skene, Esq.

All of whom have been cheerfully welcomed among us; while some of them, I feel assured, will consent to take an active part in our proceedings, and lend their personal influence, as well as their names, to maintain the reputation and usefulness of the Society.

I now proceed to advert to some of the business proceedings of the Society which deserve attention. During the past year the Council have awarded two of the medals and prizes with which they are entrusted.

I. The medal and prize founded by the liberality of our venerable President SIR THOMAS M. BRISBANE, was in the first instance proposed by the Council to be given for a biographical notice of a Scotchman eminent in science. No satisfactory replies having been received to the programme of the Council, they were unwilling to delay much longer the application of the fund destined by the founder for the reward of scientific labour. They considered it would be creditable to the Society, and in conformity with the wishes of Sir Thomas Brisbane, to take the opportunity of the Meeting of the British Association in Aberdeen, to confer this

honorary distinction on Sir Roderick Murchison (who was present at the meeting), in consideration of his original, persevering, and successful exertions to throw light upon the super-position and real age of vast geological formations of extreme antiquity in the north-western Highlands. The medal was, by permission of the British Association, presented to Sir Roderick Murchison by Sir David Brewster our Senior Vice-President, at one of the evening meetings at Aberdeen.

II. The NEILL MEDAL and Prize, founded by our late member Dr Patrick Neill, for the encouragement of the natural history studies in which he took a life-long interest, has been awarded by the Council to Dr Lauder Lindsay, a Scotchman, but not a fellow of this Society, for a paper on the Lichens, showing immense labour and research. This paper has been submitted to competent botanists for their opinion, and the Council have pleasure in stating that it has received their high approbation. It will therefore not merely be rewarded by the Neill Medal and Prize, but it is in the course of being printed at length in the Transactions, and of being illustrated by numerous plates, beautifully executed by the well-known artist, Mr Tuffen West of London. The delay which Fellows of the Society have experienced in receiving their fasciculus of transactions arises from the wish of the Council to include in it this important contribution, which will very soon be completed.

A change in the arrangement of the Society's apartments, which the Council hope will be universally considered to be an improvement, has (after many delays) been carried into effect during the past summer.

While formally entering with the Board of Manufactures into an extension of the lease of the Society's present premises, the Council very readily agreed to exchange the Old Museum upstairs for an apartment of the very same size on the ground-floor, immediately to the south of the present suite, with which it is made to communicate by opening a new door. The increased convenience of this for our conversational evening meetings must be plain to every one, and will, we hope, be experienced this evening, when the New Museum will be opened for the first time.

It may be added, that though some outlay has been incurred in connection with this improvement (as well as for the cleaning and decoration of the old rooms) no additional rent will be paid by the Society.

It may also be mentioned that the Museum has been transferred to its new place of deposit, under the charge of the Curator, with the assistance of some other members of the Society, after distributing among several public bodies some isolated specimens formerly contained in it, which were of little value to us, and which will be of more use to science when forming a part of other collections. The Society's collection in Geology and Mineralogy has been fully preserved, and is very valuable and useful.

Mr Swan, who was one of our Secretaries, has, to the regret of the Council, resigned his office in consequence of being appointed to the Chair of Natural Philosophy in St Andrews. But the Society has been so fortunate as to secure in his place the services of Dr Lyon Playfair.

Mr Carruthers, the Sub-Librarian, having removed to London, Mr John Livingston has been appointed his successor; and the Council have every reason to hope that his services will give satisfaction to the Fellows of the Society.

Lord Neaves then delivered the Neill Medal, which had been awarded to Dr Lauder Lindsay, for his Paper on the Spermogones and Pycnides of Lichens.

The following Candidate was elected an Ordinary Fellow:— Captain Gordon Forlong, Bengal Engineers.

The following Donations to the Library were announced:-

The United States Naval Astronomical Expedition to the Southern Hemisphere. 1849-52. Vol. III. 4to.—From the U. S. Government.

Army Meteorological Register for 1826-30, and for 1831-42. 8vo.—From the same.

Statistical Reports of the Sickness and Mortality in the Army of the United States, from January 1819 to January 1839. 8vo.—From the same.

Maury's Wind and Current Charts. Gales in the Atlantic. 4to.

—From the same.

Observations on the Physical Geography and Geology of the Coast of California. By W. E. Blake. 4to.—From the same.

Report of the Commissioner of Patents for 1856. Arts and Manufactures, 3 vols.; Agriculture, 1 vol. 8vo.—From the same.

- Report of the Superintendent of the Coast Survey, showing the Progress of the Survey during 1856. 4to.—From the same.
- Army Meteorological Register, from 1843 to 1854. 4to.—From the same.
- Statistical Reports of the Sickness and Mortality in U. S. Army, from January 1839 to January 1855.—From the same.
- Geological Survey of Missouri. First and Second Annual Reports. By G. C. Swallow. 8vo.—From the Missouri Legislature.
- Report (Eleventh) of the Board of Agriculture of the State of Ohio, for 1856. 8vo.—From the Ohio State Board of Agriculture.
- Tables, Meteorological and Physical, prepared for the Smithsonian Institution. By A. Guyot. 8vo.—From the Institution.
- Proceedings of the American Association for the Advancement of Science, Vols. X. and XI. 8vo.—From the Association.
- Meteorology in its connection with Agriculture. By Prof. Joseph Henry. 8vo.—From the Author.
- Transactions of the Academy of Science of St Louis. Vol. I., Part II. 8vo. From the Academy.
- Proceedings of the American Philosophical Society. Vol. VI., Nos. 57 and 58. 8vo.—From the Society.
- Proceedings of the American Academy of Arts and Sciences. Vol. III., Nos. 32-52; Vol. IV., No. 1. 8vo.—From the Academy.
- Catalogue of North American Mammals, chiefly contained in the Museum of the Smithsonian Institution. By Spencer F. Baird. 4to.—From the Institution.
- Map of Chicago Harbour and Bar.—From Lieut.-Colonel J. D. Graham,
- The Canadian Journal. Nos. 20 and 21. 8vo.—From the Canadian Institute.
- Journal of the Proceedings of the Linnman Society. Supplement to Botany. No. 2. 8vo.—From the Society.
- Temperature of the Sea around the Coasts of Scotland during 1857-58. By James Stark, M.D. 8vo.—From the Author.
- Catalogue of the Admiralty Library. 8vo.—From the Admiralty.
- Memoirs of the Geological Survey of India. Vol. I., Part II. 8vo.

 —From the Governor-General.
- Recherches Experimentales sur les Effets du Courant Electrique appliqué au Nerf Grand-sympathetique. Par MM. Philippe Comte Linati et Prince Caggiati. 8vo.—From the Authors.

- Report of the Teneriffe Astronomical Experiment of 1856. Addressed to the Lords Commissioners of the Admiralty. By Professor C. P. Smyth. 4to.—From the Lords Commissioners.
- A Treatise on Problems of Maxima and Minima, solved by Algebra.

 By Ramchudra; edited by Aug. De Morgan. 8vo.—From the Secretary of State for India.
- Monatsbericht der Koniglichen Preuss. Akad. der Wissenschaften zu Berlin. July to Dec. 1858. 8vo.—From the Academy.
- Uëbersicht der Witterung im nördlichen Deutschland nach den Beobachtungen des Meteorologischen Instituts zu Berlin. 1855, 1856, 1857, and 1858. 4to.—From the Institute.
- Quarterly Journal of the Chemical Society. No. 45. 8vo.—From the Society.
- Philosophical Transactions of the Royal Society of London. Vol. CXLVII., Part III., 1857; Vol. CXLVIII., Parts I. and II., 1858. 4to.—From the Royal Society.
- Astronomical, Magnetical, and Meteorological Observations, made at the Royal Observatory, Greenwich, in the year 1857. 4to. 1859.—From the same.
- Report of the Joint Committee of the Royal Society and the British Association, for procuring a Continuance of the Magnetic and Meteorological Observations. 8vo.—From the same.
- Atti dell' I. R. Istituto Lombardo di Scienze, Lettere ed Arti. Vol. I., Fasc. X. ed XI. Folio.—From the Institute.
- Memorie dell' I. R. Istituto Lombardo di Scienze, Lettere ed Arti. Vol. VII., Fasc. V., VI., VII., ed VIII. Folio.—From the same.
- Monumenta Sæcularia der Kön. Bayer. Akademie der Wissenschaften, 28 März 1859. 4to.—From the Academy.
- Rede bei der Hundertjæhrigen Stiftungsfeier der Kön. Bayer. Akademie der Wissenschaften, Am 28 März 1859. Gehalten von G. L. von Maurer. 4to.—From the same.
- Rede zur Vorfeier des Geburtsfestes Seiner Majestät des Königs Maximilian II. Gehalten von Geheim-Rath Fr. v. Thiersch. 4to.—From the same.
- Erinnerung an Mitglieder der Math:-physik. Classe der Kön. Bayer, Akademie der Wissenschaften. Von Dr C. F. Ph. von Martius. 4to.—From the same.
- Almanach der Kön. Bayer. Akademie der Wissenschaften für das Jahre 1859. 32mo.—From the same.

- The Atlantis: A Register of Literature and Science, conducted by Members of the Catholic University of Ireland. No. 4. July 1859. 8vo.—From the University.
- Journal of the Royal Dublin Society. July 1859. 8vo.—From the Society.
- Proceedings of the Royal Geographical Society of London. Vol. III., No. 4. 8vo.—From the Society.
- Transactions of the Royal Scottish Society of Arts. Vol. V., Part II. 8vo.—From the Society.
- Mittheilungen der Naturforschenden Gesellschaft in Bern. 1856-57. 8vo.—From the Society.
- Verhandlungen der allgemeinen schweizerischen Gesellschaft für die gesammten Naturwissenschaften. Aug. 1857. 8vo.—
 From the Society.
- Neue Denkschriften der allgemeinen schweizerischen Gesellschaft für die gesammten Naturwissenschaften. Band XVI. 4to.

 —From the same.
- The Quarterly Journal of the Geological Society. Vol. XV., Part III. 8vo.—From the Society.
- Die Fortschritte der Physik in Jahre 1856. Dargestellt von der Physikalischen Gesellschaft zu Berlin. 8vo.—From the Society.
- Transactions of the Royal Society of Literature. Vol. VI., Part II. 8vo.—From the Society.
- Proceedings of the Royal Medical and Chirurgical Society of London. Vol. III., No. 2. 8vo.—From the Society.
- Report of the Proceedings of the Geological and Polytechnic Society of the West Riding of Yorkshire. 1858-59. 8vo.—From the Society.
- Annual Report of the Leeds Philosophical and Literary Society. 1858-59. 8vo.—From the Society.
- Proceedings of the Royal Geographical Society. Vol. III., No. 5. 8vo.—From the Society.
- The Canadian Journal. July 1859. 8vo.—From the Editors.
- The Quarterly Journal of the Chemical Society. No. 46.
- Proceedings of the Horticultural Society of London. Nos. 1 to 3. 8vo.—From the Society.
- Quarterly Return of the Births, Deaths, and Marriages. No. 18. 8vo.—From the Registrar-General.

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- Smithsonian Report for 1857. 8vo.—From the Smithsonian Institution.
- Smithsonian Contributions to Knowledge. Vol. X. 4to.—From the same Institution.
- Reply to the "Statement of the Trustees" of the Dudley Observatory. By B. A. Gould, jun. 8vo. 1859.—From the Author.
- Defence of Dr Gould. By the Scientific Council of the Dudley Observatory. 8vo.—From the Council.
- Paper and Resolutions in Advocacy of a Uniform System of Meteorological Observations throughout the American Continent. By Major R. Lachlan. 8vo.—From the Author.
- Comptes Rendus hebdomadaires des Séances de l'Académie des Sciences. T. XLIX., Nos. 4-5. 4to.—From the Academy.
- Report of the British Association for the Advancement of Science. Leeds, 1858. 8vo.—From the Association.
- On the Chemical Composition of the Granites of Ireland. By Professor Haughton. 8vo.—From the Author.
- Experimental Researches on the Granites of Ireland. By Professor Haughton. 8vo.—From the Author.
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- Journal of the Geological Society of Dublin. Vol. I., Parts II.—IV.; Vol. II., Parts I.—III.; Vol. III., Parts I.—IV.; Vol. IV., Parts I.—II. 8vo.—From the Society.
- Comptes Rendus hebdomadaires des Séances de l'Académie des Sciences. Nos. 6 and 7. 4to.—From the Academy.

- Notes as to the Construction of Breakwaters for Harbours of Refuge. By D. & T. Stevenson. 8vo.—From the Authors.
- Supplement to Daubeny's "Descriptions of Volcanoes." 8vo.—
 From the Author.
- Silliman's American Journal of Science and Arts. Vol. XXVIII., No. 82. 8vo.—From the Editors.
- Bulletin de la Société de Geographie. Tome XVII. 4me Sèr. 8vo.—From the Society.
- An Account of the Life, Lectures, and Writings of William Cullen,
 M.D. By Drs John and William Thomson and Dr Craigie.
 2 vols. Edinburgh, 1859. 8vo.—From Dr Allen Thomson and Dr Craigie.
- Monthly Return of Births, Deaths, and Marriages. August 1859.

 —From the Registrar-General.
- Proceedings of the Royal Society of London. Vol. X., No. 36. 8vo.—From the Society.
- Uber die Hügel bei Sitten im Wallis. By Professor Studer. 4to.

 —From the Author.
- Journal of Proceedings of the Linnæan Society. Vol. IV., No. 14. 8vo.—From the Society.
- Memoires de l'Académie Royale des Sciences de Belgique. Tome XXXI. Bruxelles, 1859. 4to.—From the Academy.
- Memoires Couronnés et Memoires des Savants étrangers publiés par l'Académie Royale de Belgique. Tome XXIX. Bruxelles, 1859. 4to.—From the Academy.
- Annales de l'Observatoire Royale de Bruxelles; par A. Quetelet. Bruxelles, 1859. 4to.—From the Observatory.
- Observations des Phénomènes periodiques.—From M. Ad. Quetelet. Memoires Couronnés et autres Memoires publiés par l'Académie Royale de Belgique. Tome VIII. Bruxelles, 1859. 8vo.—
 - From the Academy.
- Bulletins de l'Académie Royale de Belgique. 2me Sèr. Tomes IV.-VI. Bruxelles, 1859. 8vo.—From the Academy.
- Annuaire de l'Académie Royale de Belgique, 1859. Bruxelles, 1859. 12mo.—From the Editor.
- Annuaire de l'Observatoire Royale de Bruxelles; par Ad. Quetelet. Bruxelles, 1858. 12mo.—From the Editor.
- Tables générales et analytiques du Recueil des Bulletins de l'Académie Royale de Belgique. 1re Sér. Tome I.-XXII. 8vo.

- Sur les travaux de l'ancienne Académie de Bruxelles. Discours par A. Quetelet. 8vo.—From the Author.
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- Sur la Constance dans le nombre des mariages et sur la statistique morale en générale; par M. Ad. Quetelet. 8vo.—From the Author.
- Rymbybel van Jacob van Maerlaut. Bruxelles, 1859. 8vo.
- Transactions of the Architectural Institute of Scotland (Session 1857-58). Edinburgh, 1859. 8vo.—From the Institute.
- Magnetische Untersuchungen in Nord-Deutschland, Belgien, Holland, Dänemark. Von J. Lamont. Munich, 1859. 4to.—
 From the Royal Observatory of Munich.
- Proceedings of the Royal Astronomical Society. 8vo (Monthly).—

 From the Society.
- Journal of the Society of Arts (Weekly). 8vo.—From the Society.

 Jahres-Bericht der Münchener Sternwarte für 1858. Munich,

 1859. 8vo.—From the Royal Observatory of Munich.
- Monatliche und jährliche Resultate der an der Königlichen Sternwarte bei München von 1825 bis 1856 Angestellten Meteorologischen Beobachtungen.—From the Royal Observatory of Munich.
- Atti dell I. R. Istituto Lombardo di Scienze, Lettere ed Arti. Vol. I., Fasc. 1-9. Milan, 1858.—From the Institute.
- Memorie dell' I. R. Istituto Lombardo di Scienze, Lettere ed Arti. Vol. VII., Fasc. 1-4.—From the Institute.
- Memoires presentées par divers Savants à l'Académie des Sciences de l'Institute Impériale de France. Vol. XV. Paris, 1858. 4to.—From the Academy.
- Journal of Agriculture and Transactions of the Highland and Agricultural Society of Scotland. No. 66 (New Series). Edinburgh. 8vo.—From the Society.
- Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften (Mathematisch Naturwissenschaftliche Classe). 1858. Parts I.-XV. Bände XXIV., XXV. 1, 2; XXVI., XXVII. 1.

- Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften (Philosophisch-Historische Classe). Bände XXIII. 5; XXIV. 1, 2; XXV. 1, 2, 3; XXVI. 1, 2; XXVII.—From the Imperial Academy.
- Almanach der Kaiserlichen Akademie der Wissenschaften. Vienna, 1858. 8vo.—From the Academy.
- Festrede bei der Feierlichen Übernahme des ehemaligen Universitätsgebäudes vom Dr T. G. von Karajan. Vienna. 8vo.—
 From the Academy.
- Die Principien der heutigen Physik von Dr Andreas Ritter v. Ettingshausen. Vienna. 8vo.—From the Academy.
- Jahrbücher der K. K. Central-Anstalt für Meteorologie und Erdmagnetismus. Von Karl Kreil. Band V. Vienna, 1858. 4to.
- Denkschriften der Kaiserlichen Akademie der Wissenschaften. Band XIV. Vienna. 4to.—From the Academy.
- Memoirs of the Royal Astronomical Society. Vol. XXVII. London, 1859. 4to.—From the Society.
- Monthly Notices of the Royal Astronomical Society. Vol. XVIII. London, 1858. 8vo.—From the Society.
- Brockhaus (H.) Die Sage von Nala u. Damaganti.—From the Royal Saxon Society.
- Berichte d. Philolog. Histor. Classe, 1858. II.—From the same Society.
- Fechner psychophysisches Grundgesetz.—From the same Society.

 Hankel elehtrische Untersuchungen. No. 4.—From the same Society.
- Hofmeister Phanerogamen.—From the same Society.
- Berichte d. Math. Phys. Classe. 1858. II. and III.—From the same Society.
- Bulletin de la Société Palæontologique de Belgique. Tome I., Parts I.-IV.—From the Society.
- Proceedings of Literary and Philosophical Society of Liverpool. 1858-59.—From the Society.
- Proceedings of Horticultural Society of London. Nos. 4-6.— From the Society.
- Registrar-General's Monthly Report (September). From the Registrar-General.
- Quarterly Journal of Chemical Society. From the Society.

- Notices of Proceedings of Royal Institution of Great Britain.—

 From the Institution.
- Proceedings of Royal Institution of Great Britain. Part IX. 1859.

 —From the Institution.
- Journal of Royal Geographical Society. 1858.—From the Society.
- Transactions of Zoological Society. Vol. IV., Part VI.—From the Society.
- Proceedings of Zoological Society. Part XXVI., 1858; Parts I. and II., 1859.
- Notice of Royal Astronomical Society. No. 10 .- From the Society.
- Annual Report of Royal Cornwall Polytechnic Society. 1858.—
 From the Society.
- Bulletin de la Société Imperiale de Moscow. Nos. 23 and 24. 1858-59.—From the Imperial Society.
- Registrar-General's Monthly Report (October) From the Registrar-General.
- Reply to Sir David Brewster's Memorial to the Lords Commissioners. By D. and T. Stevenson.—From the Authors.
- Journal of Royal Dublin Society (October 1859).—From the Society.
- Proceedings of Royal Geographical Society. No. 6.—From the Society.
- Admiralty Charts .- From the Admiralty.
- Six Plans of the Rise and Fall of the River Indus. 1845-48.—
 From the Indian Government.
- Series of Military and other Maps. By Colonel Jervis.—From W. P. Jervis, Esq.
- Bulletin de la Société Vaudoise.—From the Society.
- Places of 5345 Stars observed from 1828-54 at the Armagh Observatory. By Rev. T. R. Robinson, D.D.—From Her Majesty's Government.